

FIG. 1

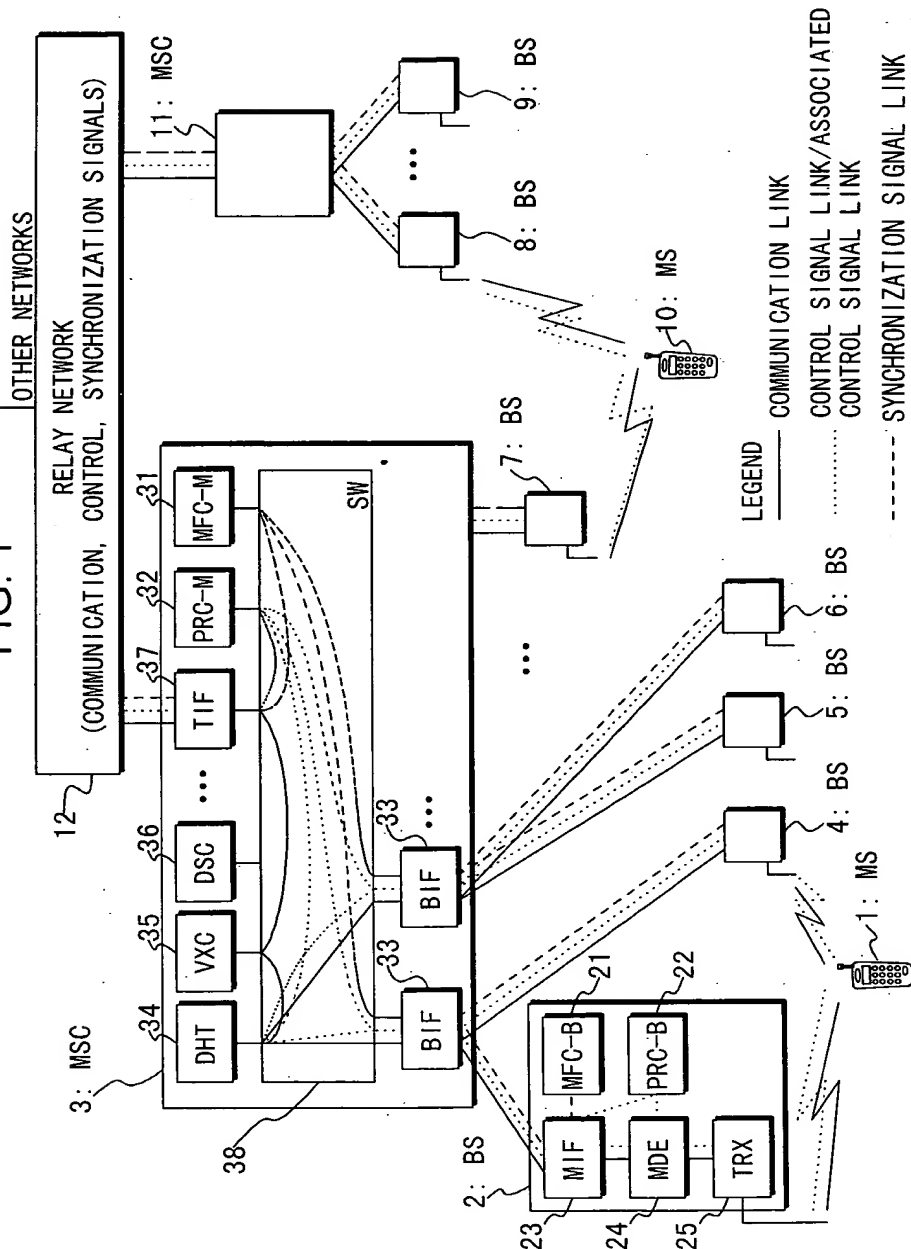
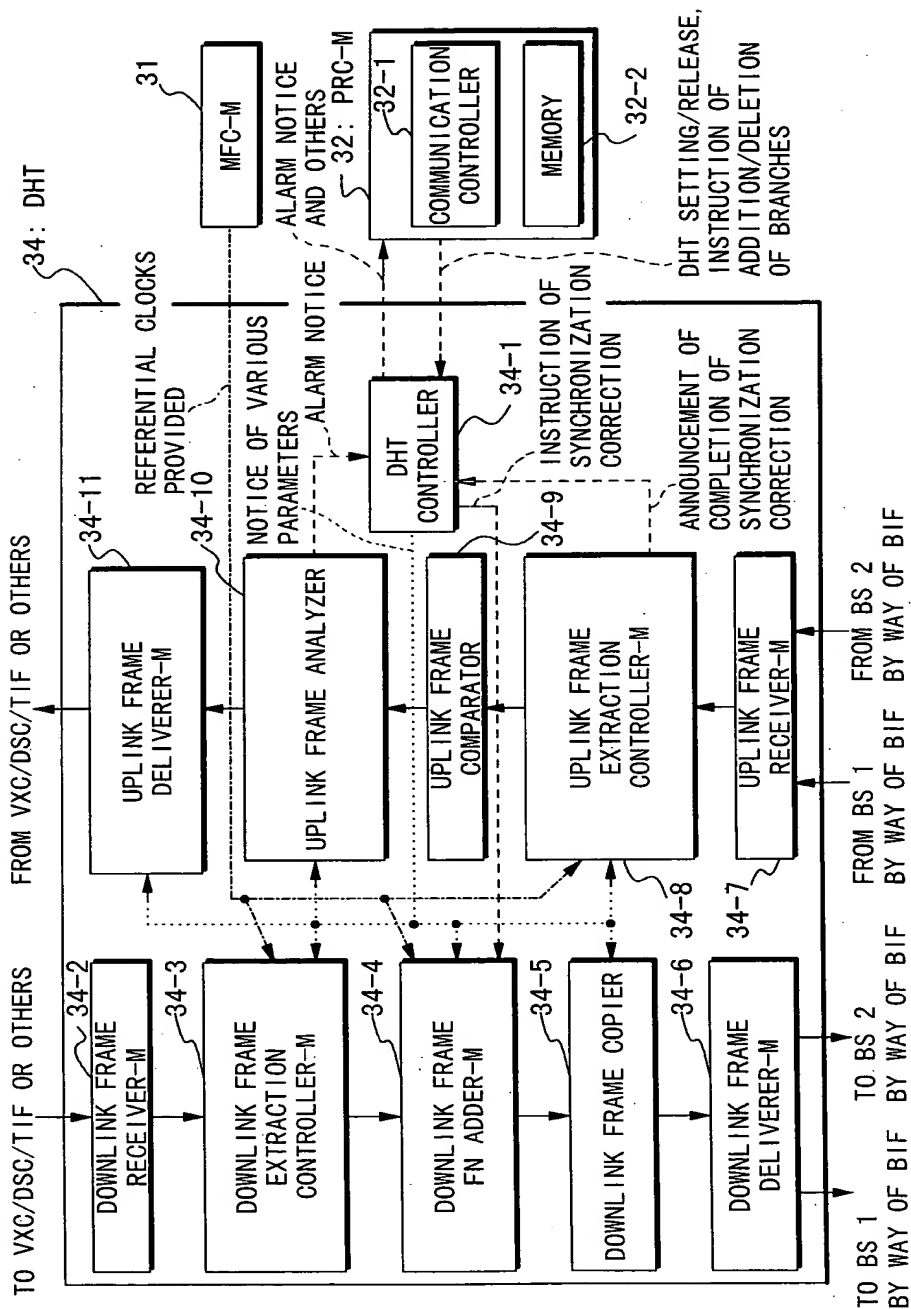


FIG. 2



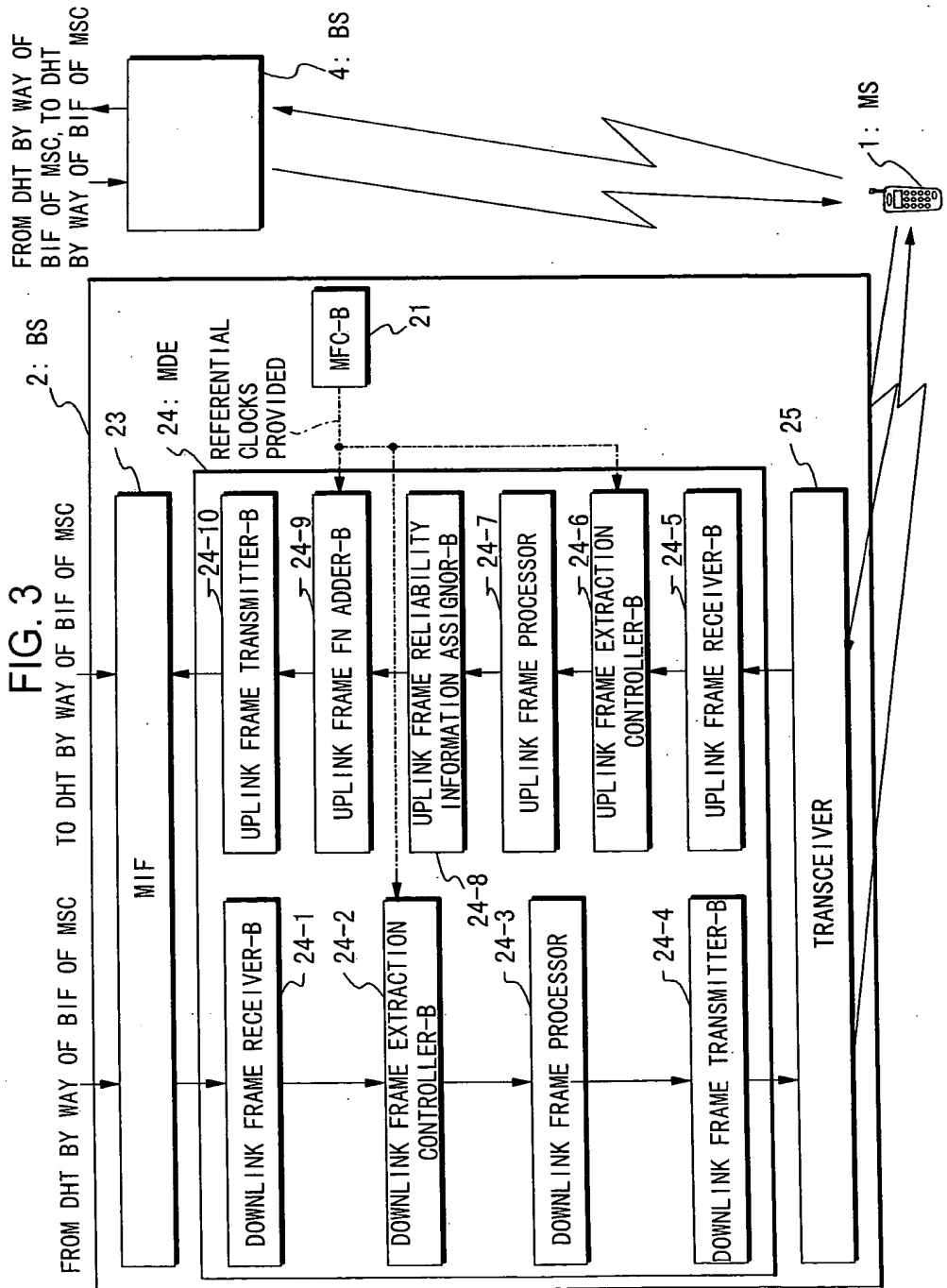


FIG. 4

CONNECTION MANAGEMENT TABLE

IDENTIFIER CALL	NUMBER OF DHO BRANCHES	BRANCH ID = 1	BRANCH ID = 2	...	BRANCH ID = N	NETWORK SIDE CONNECTION
1	2	VP = 1 VC = 32 CID = 32	VP = 2 VC = 32 CID = 40			VP = 3 VC = 32 CID = 42
2	3	VP = 1 VC = 32 CID = 40	VP = 3 VC = 33 CID = 36	VP = 4 VC = 32 CID = 50		VP = VC = CID =

FIG. 5

MSC-BS TRANSMISSION DELAYS BY SERVICE TYPES MANAGEMENT TABLE (UNIT = ms)

SERVICE TYPE TARGET BS	(a-1) MS~MSC CONTROL SIGNAL	(a-2) VOICE	(a-3) DATA COMMUNICATION 1	...	(a-n) SERVICE n
(b-1) BS 1	80	30	50		
(b-2) BS 2	85	38	55		
(b-n) BS n	75	25	45		
(b-max) MAXIMUM	90	40	60		

FIG. 6

QUALITY DEGRADATION AND OUT-OF-SYNC PARAMETERS

PARAMETER	SERVICE TYPE	(a-1) MS~MSC LINK FOR AFFILIATED CONTROL SIGNALS	(a-2) VOICE	(a-3) DATA COMMUNICATION 1	...	(a-n) SERVICE n
QUALITY DEGRADATION MEASUREMENT PARAMETER	MEASUREMENT PERIOD (ms)	1000	1000	0		
	THRESHOLD FOR ANNOUNCEMENT REPORT FER	10	10	10		
OUT-OF- -SYNCHRONIZATION DETECTION PARAMETER	NUMBER OF SUCCESSIVE OUT-OF-SYNC FRAMES REPORT SOUT	2	2	2		

0592337 05652160

FIG. 7

TRAFFIC INFORMATION TABLE

SERVICE TYPE TRAFFIC INFORMATION	(a-1) MS~MSC CONTROL SIGNAL	(a-2) VOICE	(a-3) DATA COMMUNICATION 1	...	(a-n) SERVICE n
	CELL INTERVAL (ms)	10	10		
NUMBER OF CELLS	VARIABLE	1	3		

FIG. 8

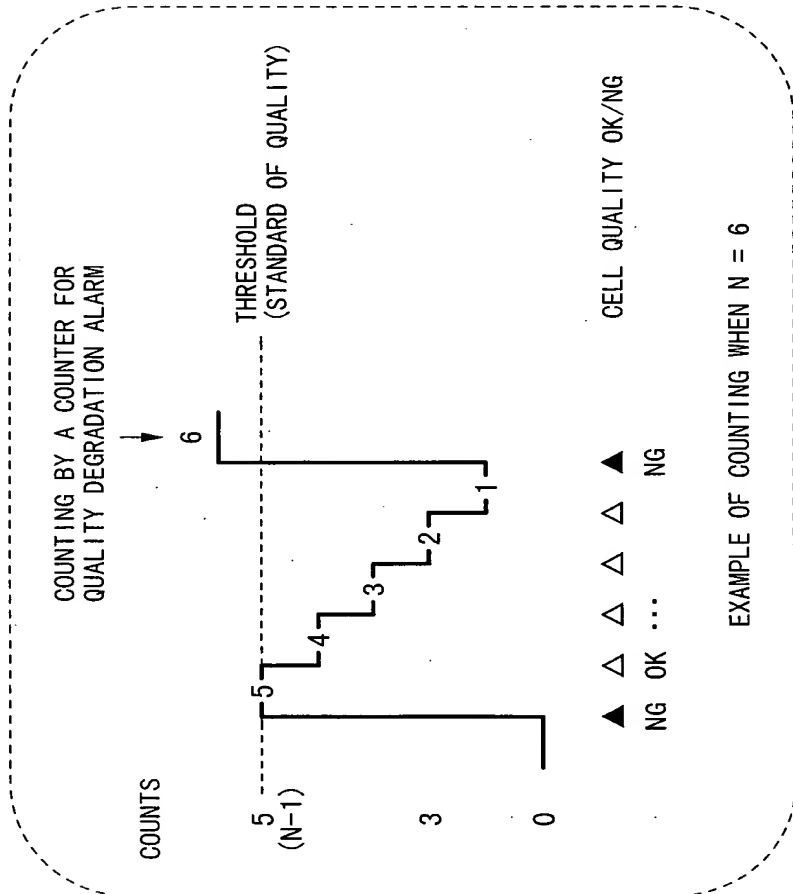


FIG. 9

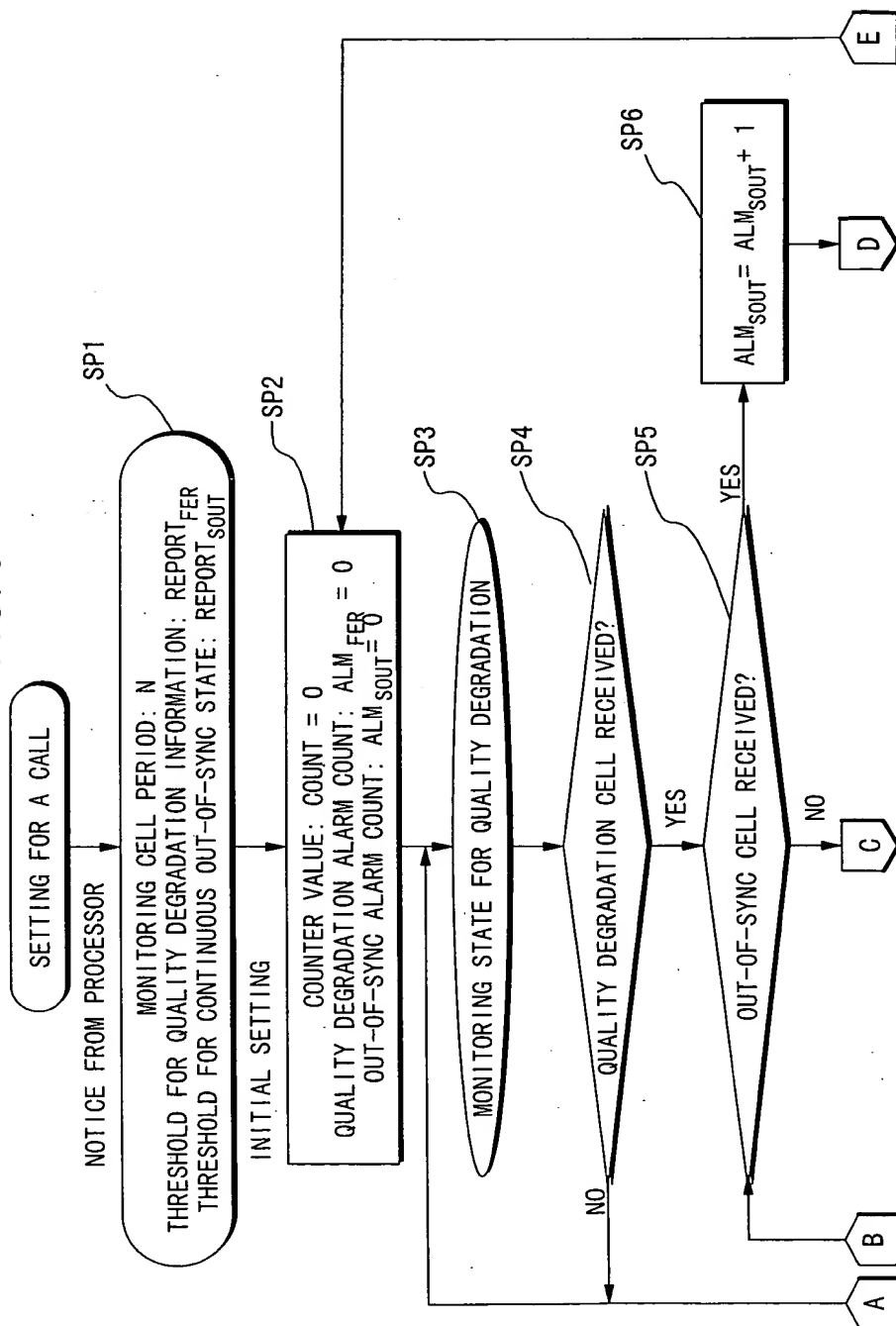


FIG. 10

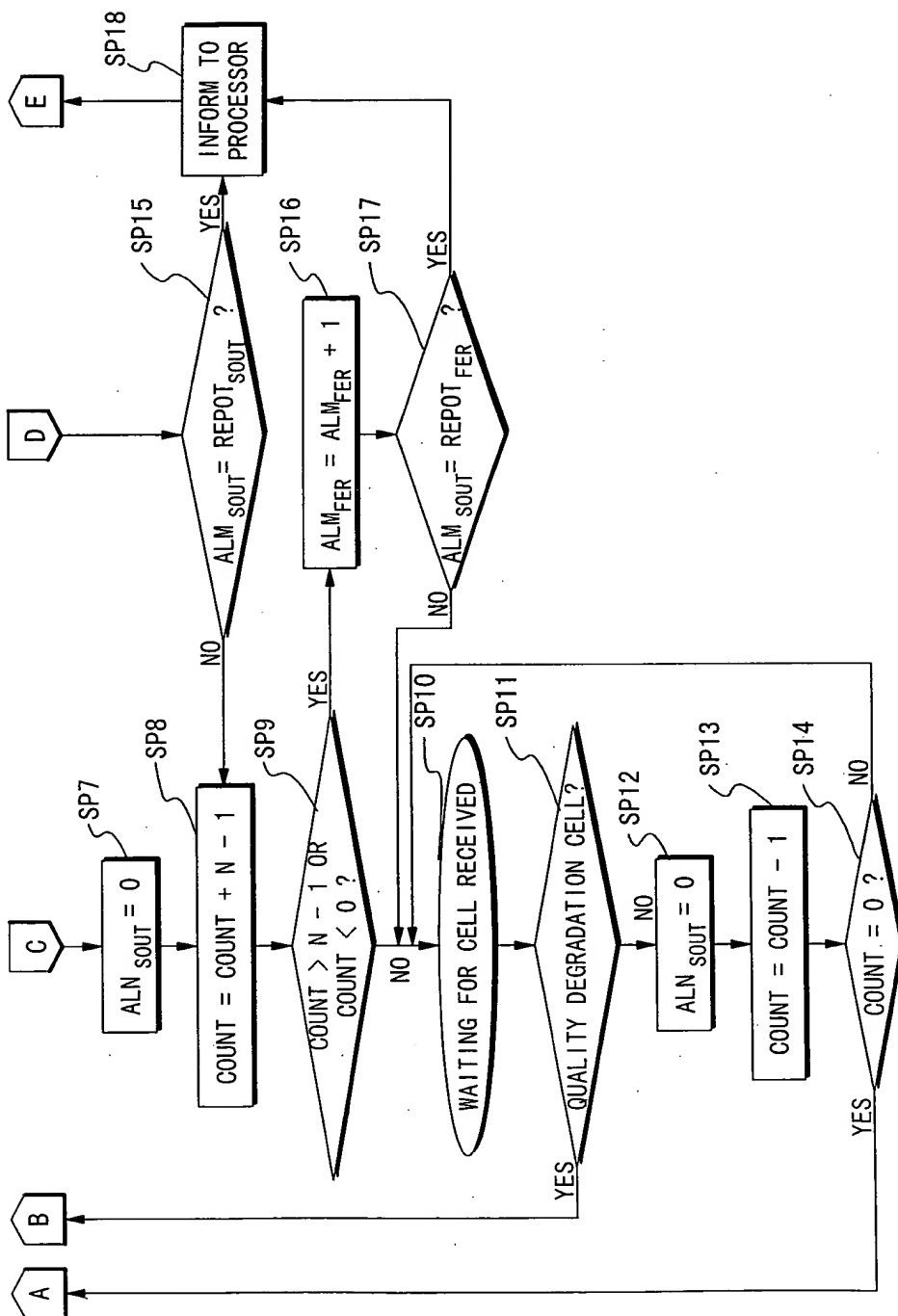


FIG. 11

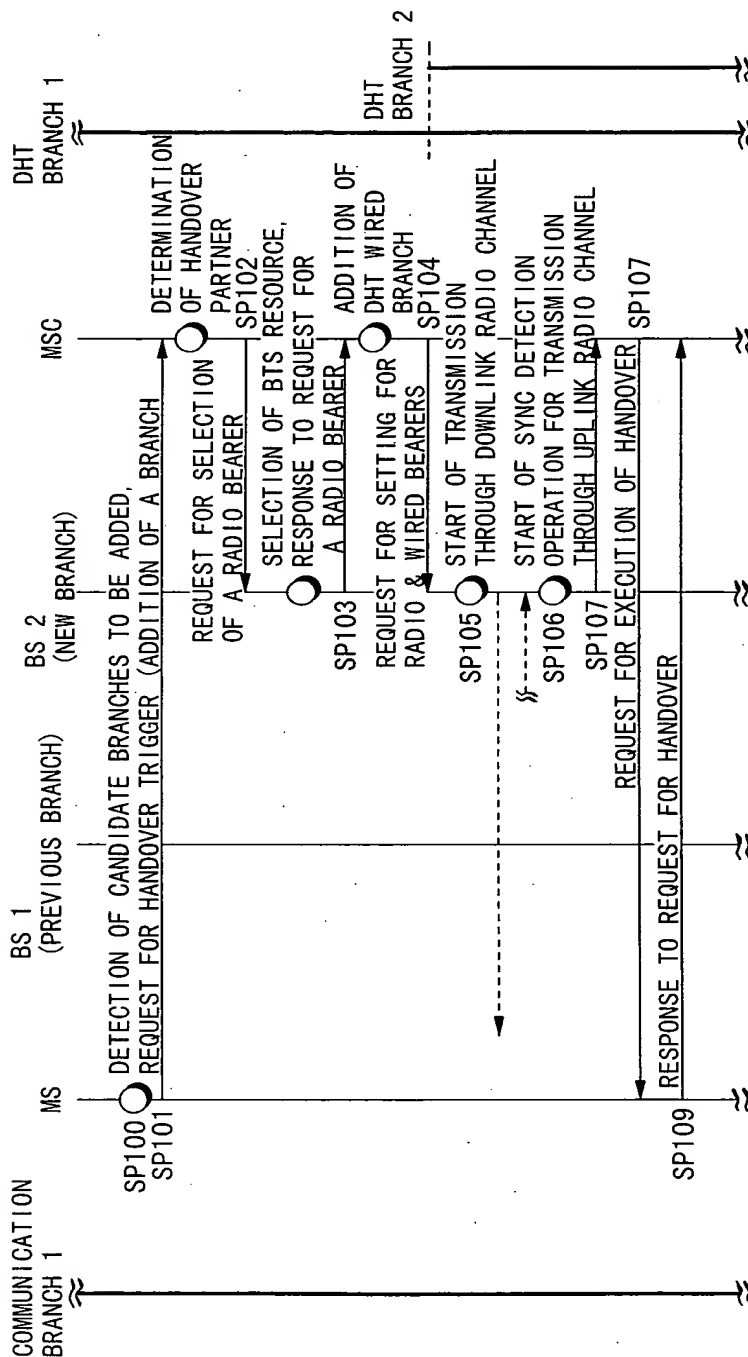


FIG. 12

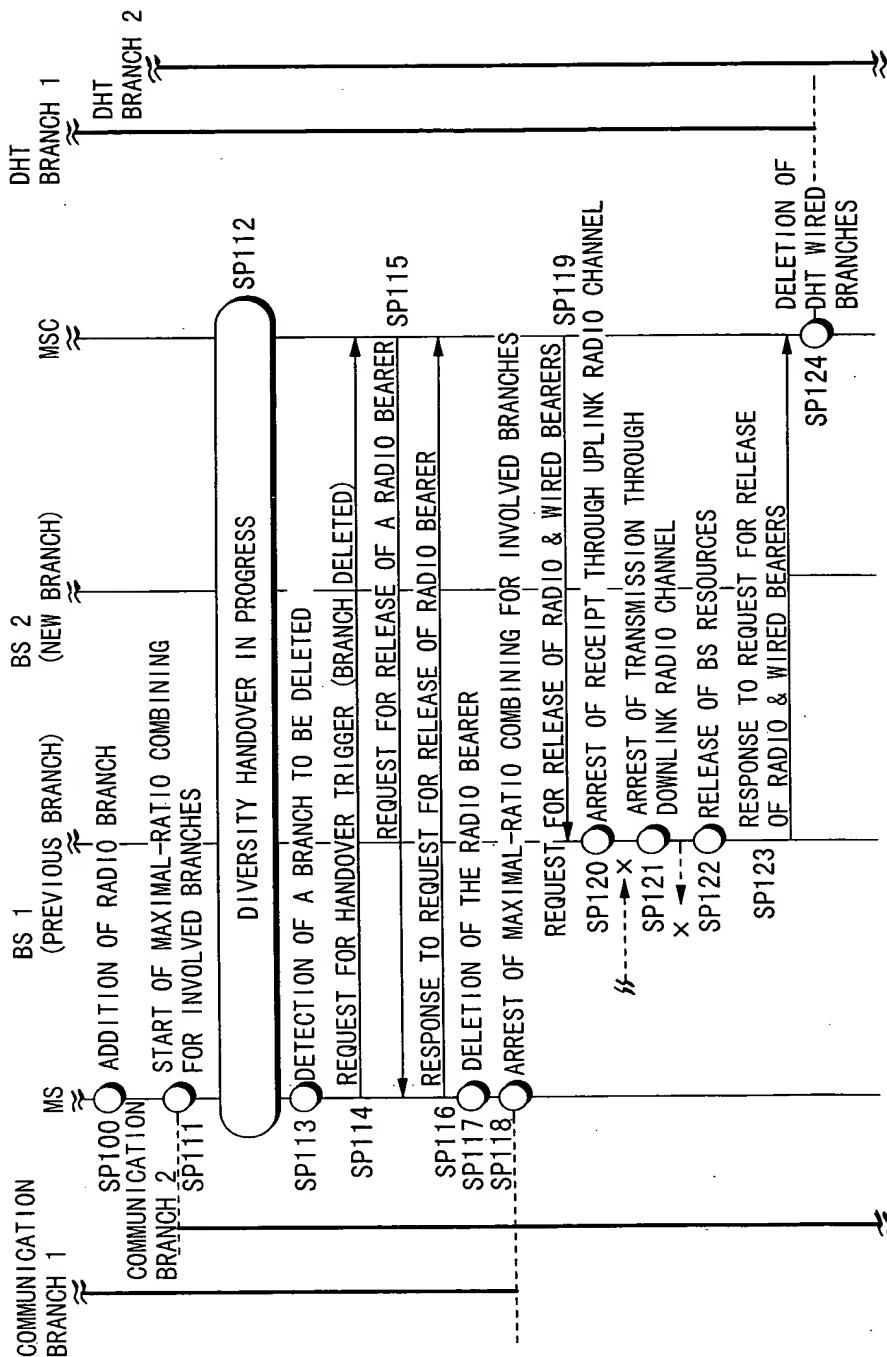


FIG. 13

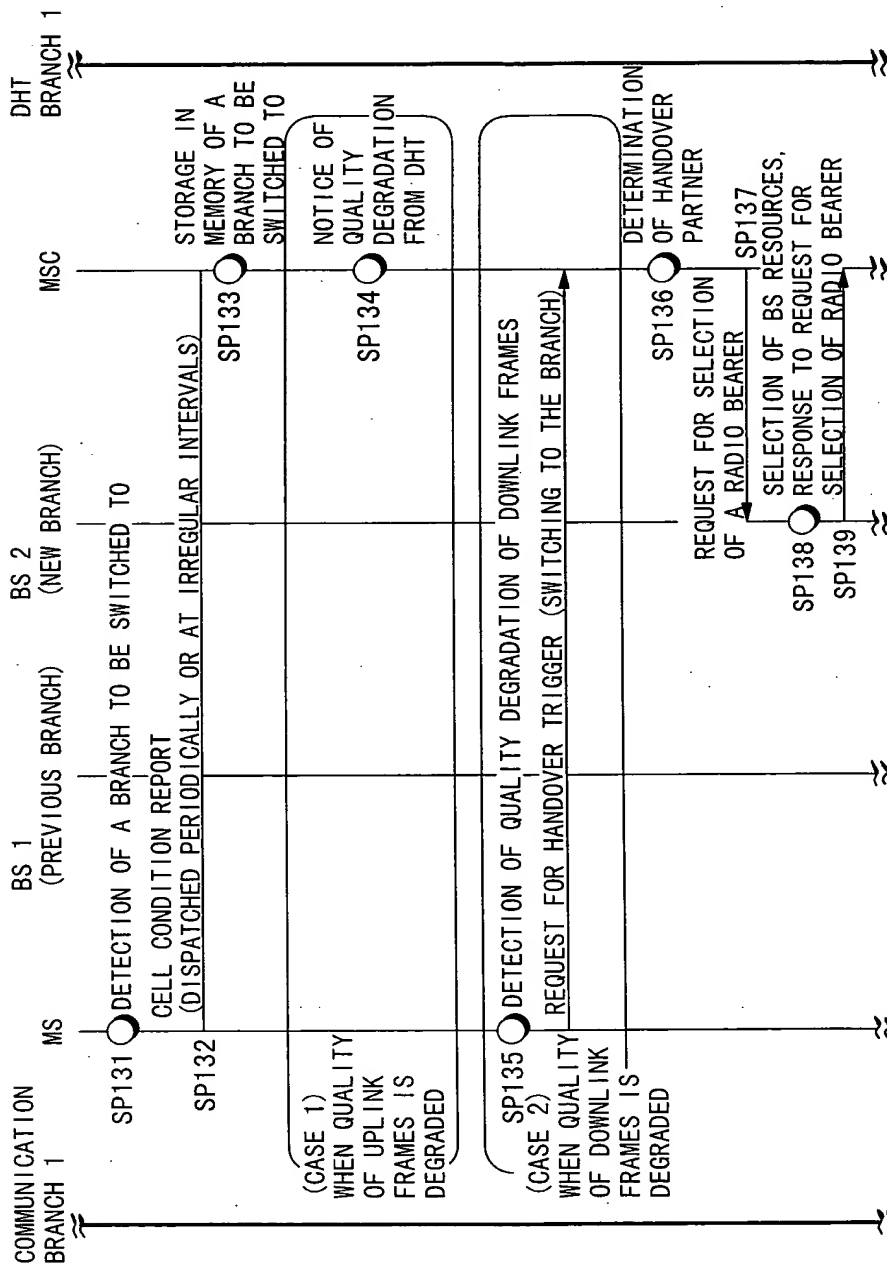


FIG. 14

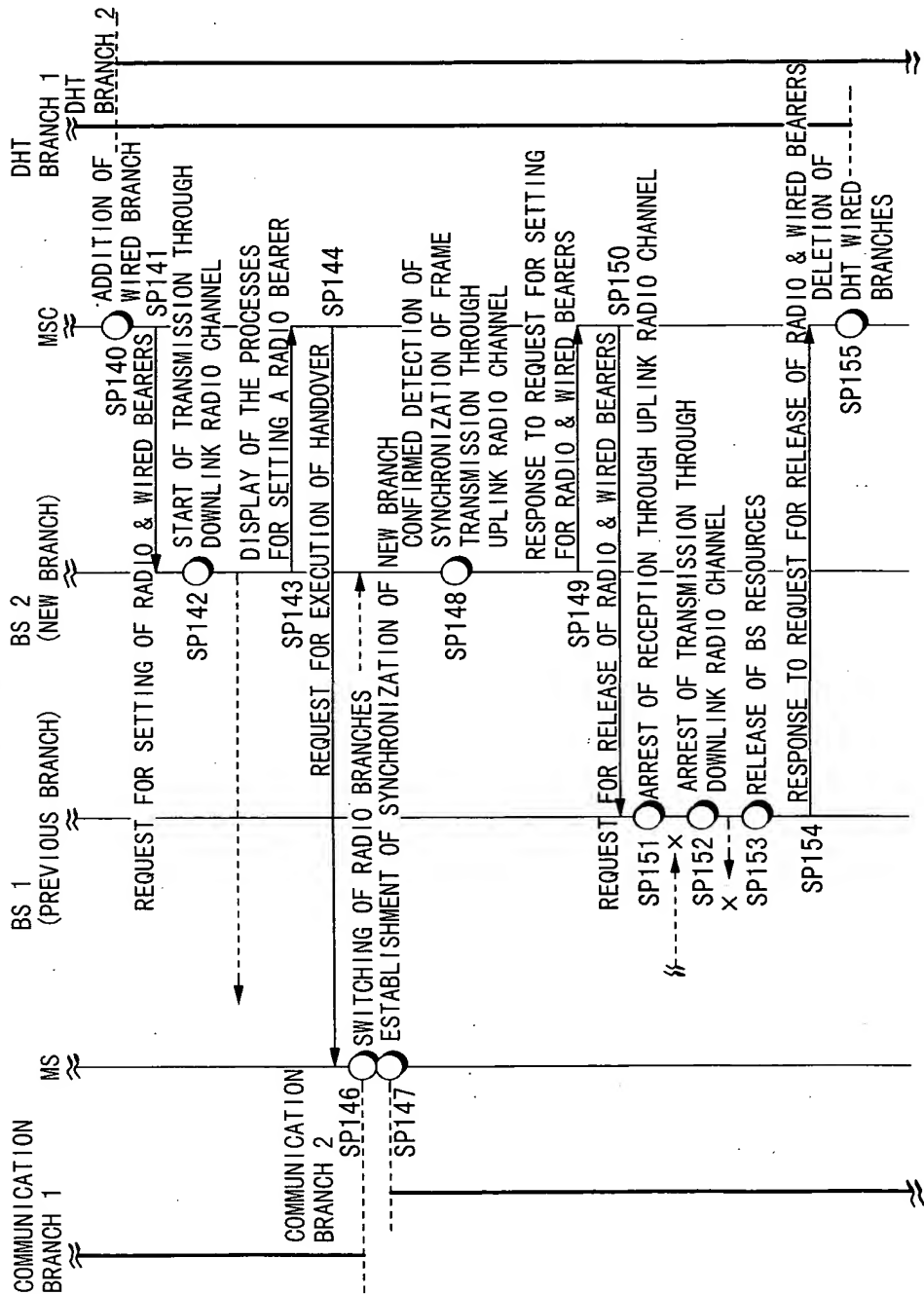


FIG. 15

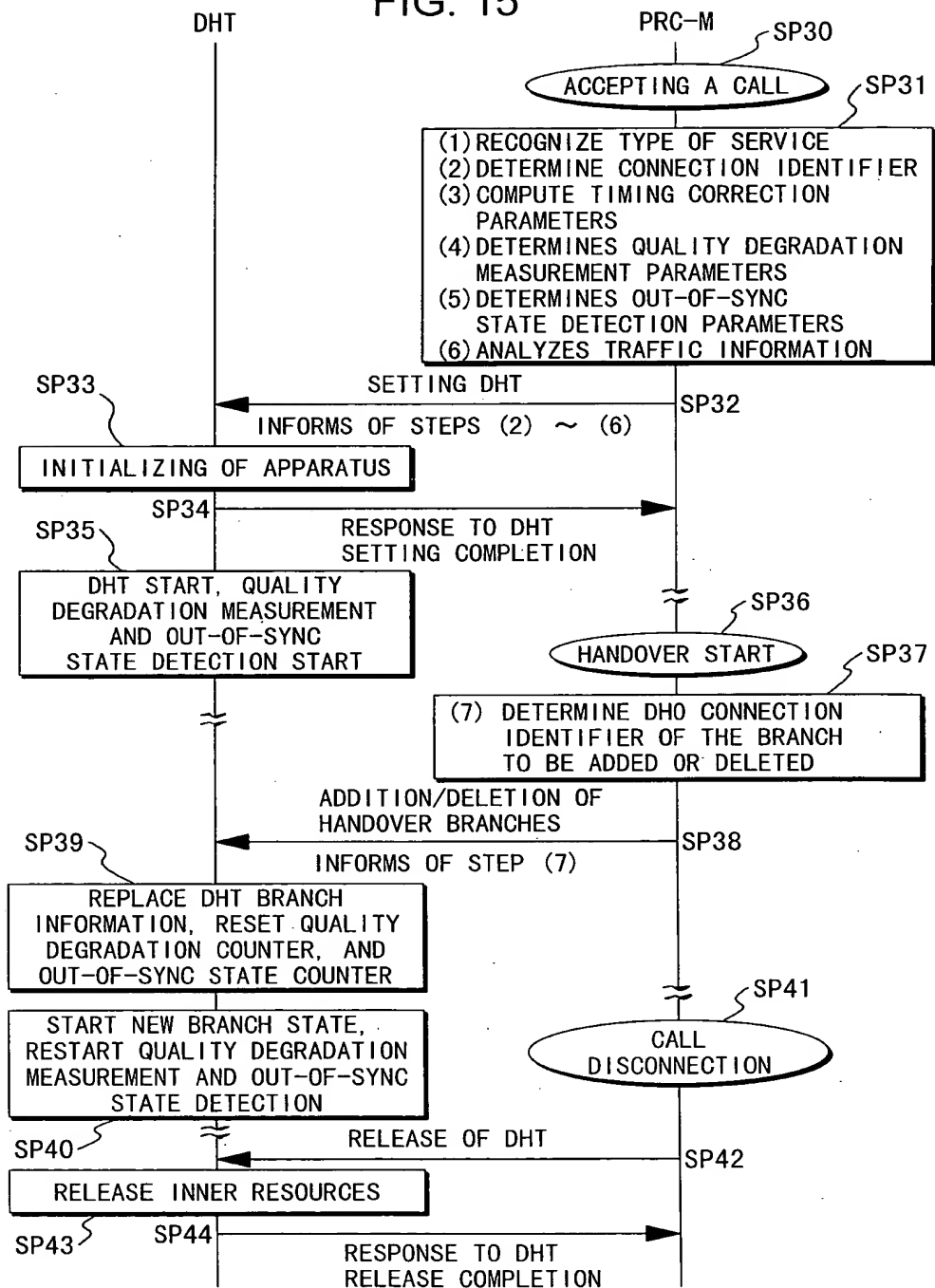


FIG. 16

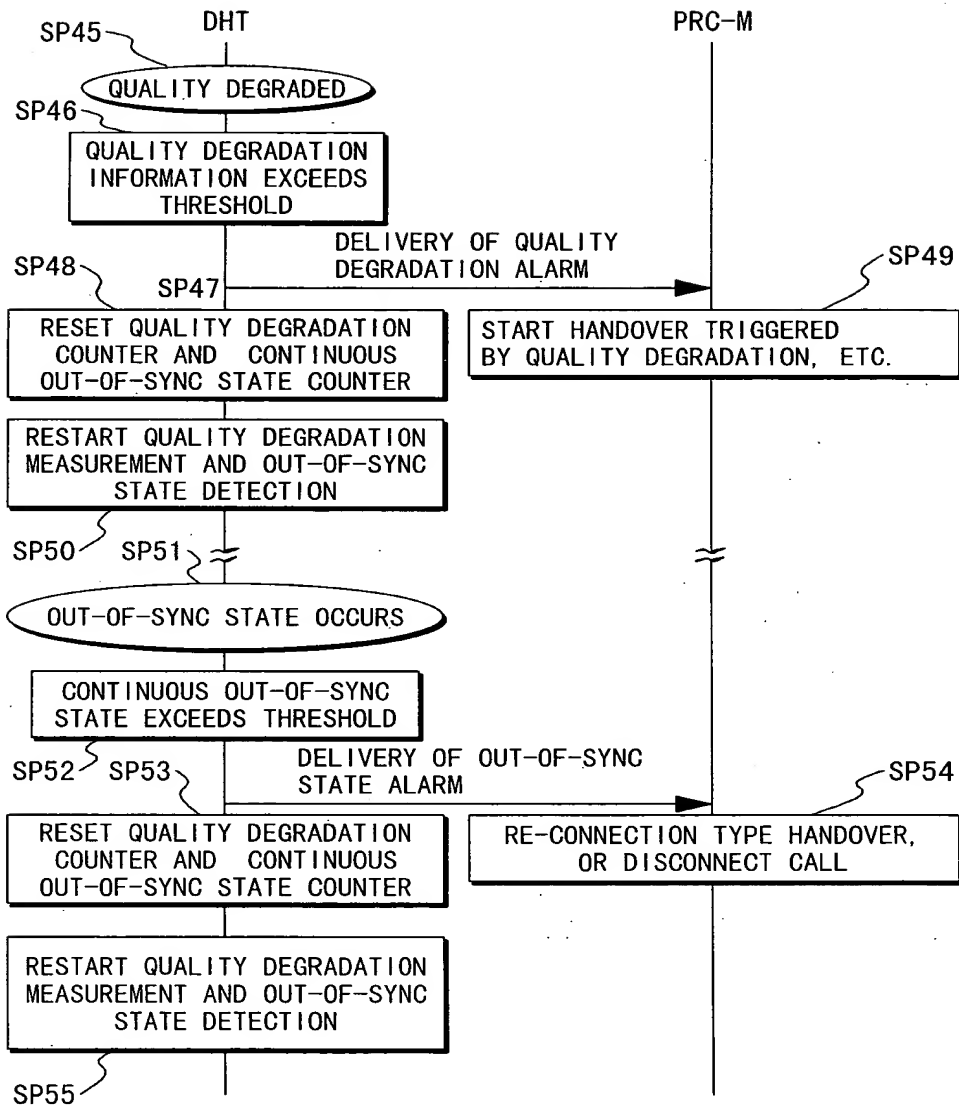


FIG. 17

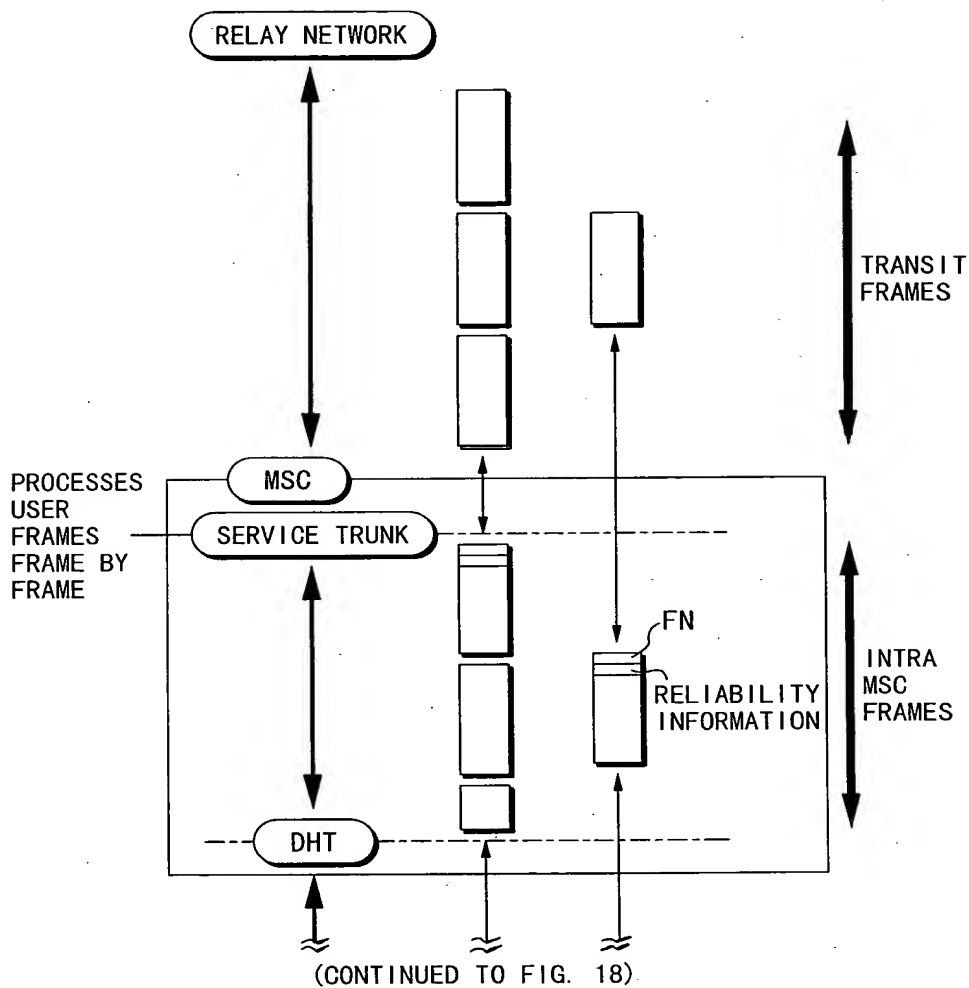


FIG. 18

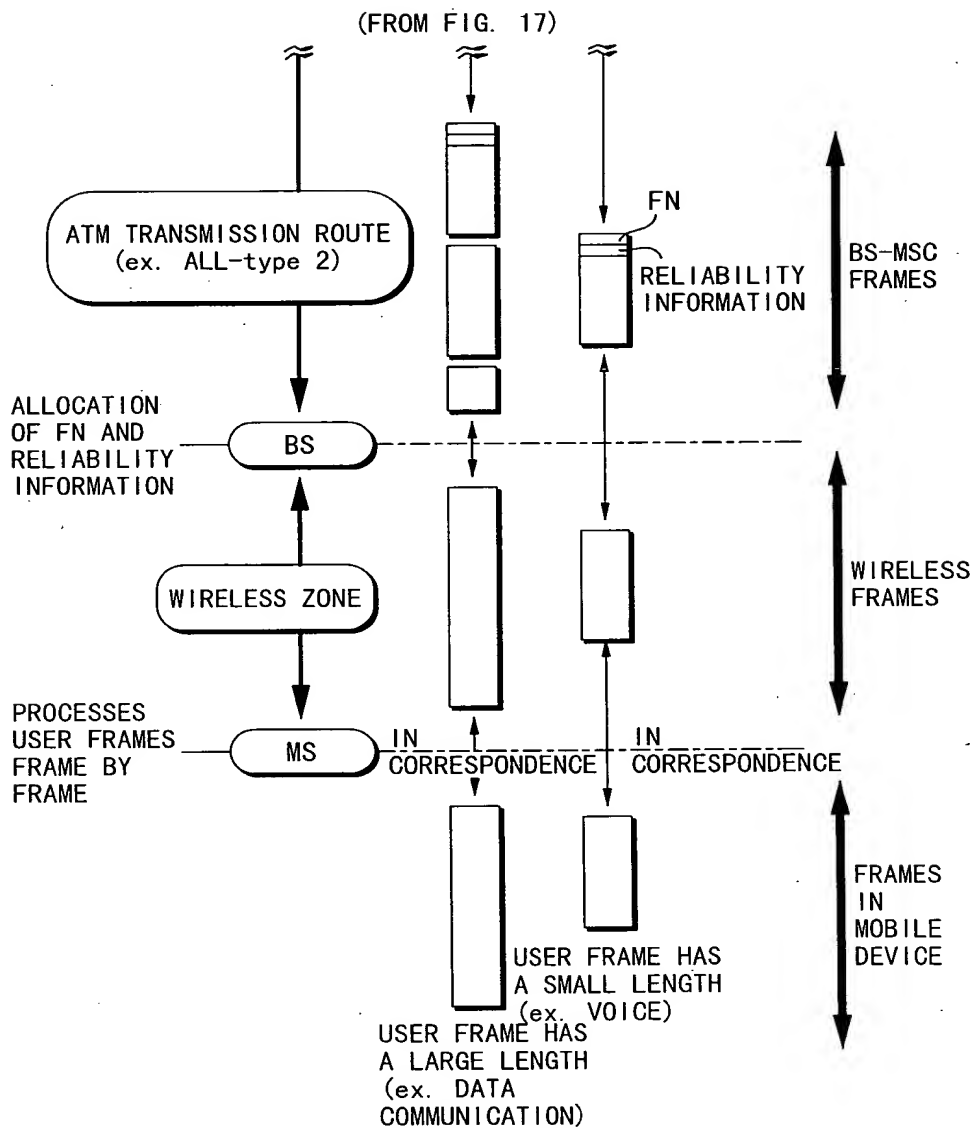
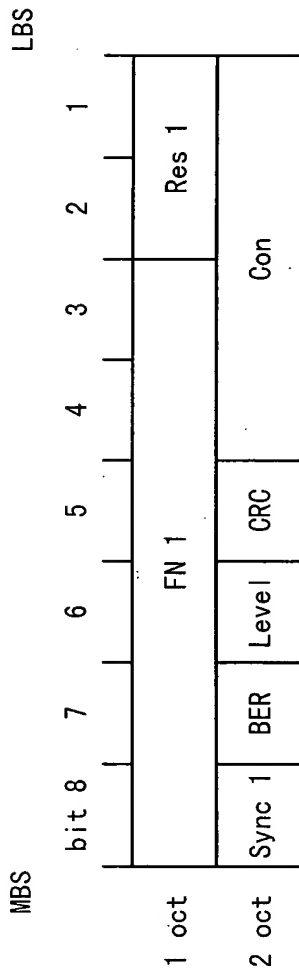


FIG. 19



FN : WIRELESS FRAME NUMBER
 Sync : OUT-OF-SYNC STATE OF RADIO FRAMES EVALUATION BIT
 BER : BER INFERIORITY DECISION BIT
 Level : LEVEL DEGRADATION EVALUATION BIT
 CRC : CRC DECISION BIT
 Con : RECEIVED SIR VALUE
 Res : RESERVE BIT

0~63
 1 = OUT-OF-SYNC, 0 = SYNC MAINTAINED
 1 = DEGRADATION DETECTED, 0 = NORMAL
 1 = DEGRADATION DETECTED, 0 = NORMAL
 1 = NG, 0 = OK
 0~F (H) (16 STEPS) A LARGER NUMBER
 INDICATES A LARGER RECEIVED SIR.

FIG. 20

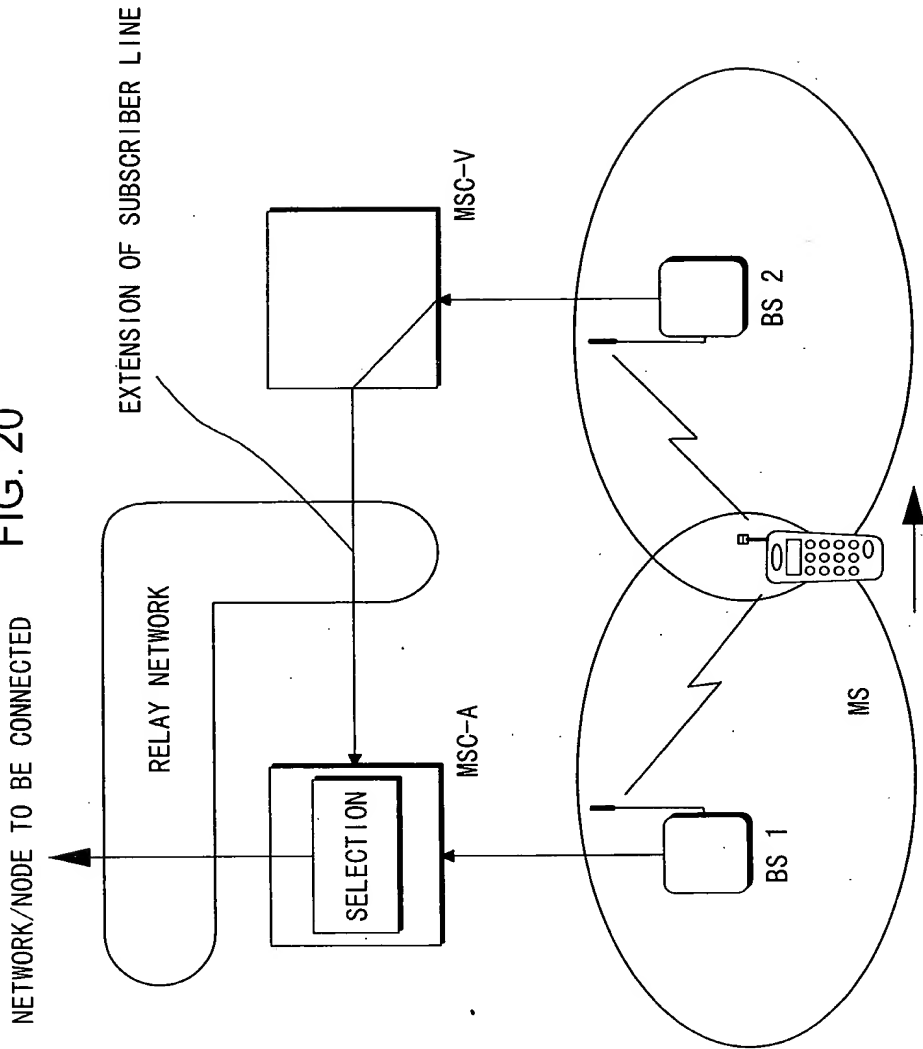
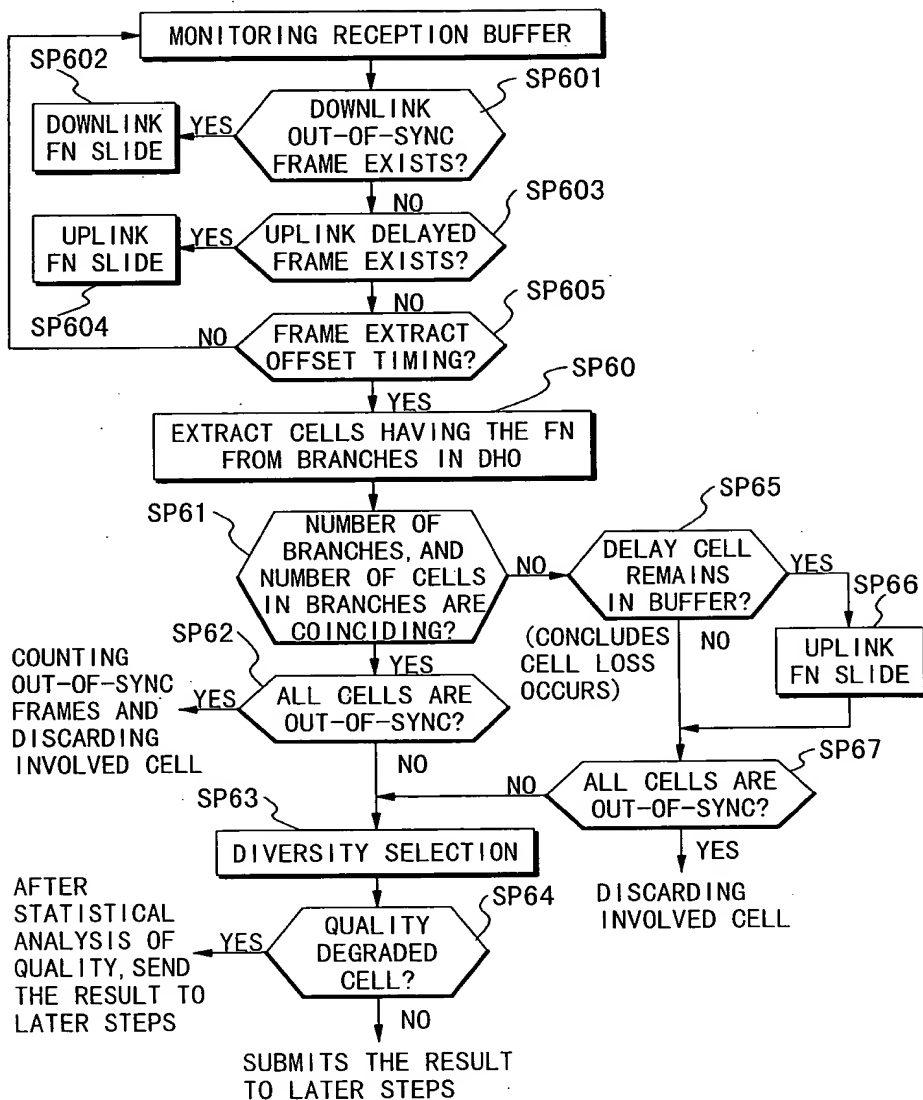


FIG. 21



09125958-00000000

09125958 09/125958

FIG. 22

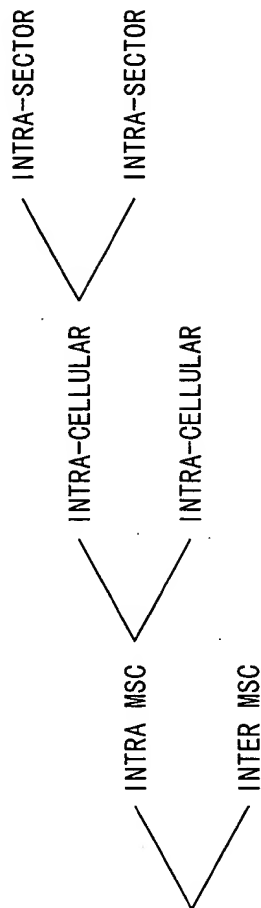


FIG. 23

	IMAGE VIEWED FROM DHT	IMAGE VIEWED FROM MS
DHO *1	ADDITION OF Br	
	DELETION OF Br	
	2Br OR LESS	
	ADDITION /DELETION OF Br	
3Br *2		
Br SWITCHED HO		
RE-CONNECTION TYPE HANDOVER		

FIG. 24

CATEGORY	TRIGGER		TYPE	DIRECTION	EVALUATOR
	TRANSMISSION LOSS	DETECTION OF NEW Br CANDIDATE	2Br OR LESS		
			3Br		
		DETECTION OF UNNECESSARY Br	2Br OR MORE		
				DOWNLINK	MS

CONTINUED FROM FIG. 24

NARROWLY DEFINED	DEGRADED QUALITY	VISITING SECTOR	MISREPRESENTED CODES		UPLINK/ DOWNLINK	BTS, DHT/ MS
		DESTINATION SECTOR	SETTING OF THE SAME FREQUENCY BAND POSSIBLE	VACANT TRX OF THE SAME FREQUENCY BAND ABSENT	UPLINK/ DOWNLINK	BTS, DHT/ MS
BROADLY DEFINED	OUT-OF-SYNC	OAM	SETTING OF THE SAME FREQUENCY BAND IMPOSSIBLE	PERCH SETTING POSSIBLE	UPLINK/ DOWNLINK	BTS, DHT/ MS
			DISCHARGE FOR MAINTENANCE		UPLINK/ DOWNLINK	BTS, OPS
			CHANGE OF ATTRIBUTES			MSC

CONTINUED FROM FIG. 24

CRITERIA FOR EVALUATION	DHT FIXED					
	DHO					
	INTRA-CELLULAR, INTER-SECTOR			INTER-CELLULAR		
	ADDITION OF Br	DELETION OF Br	ADDITION /DELETION OF Br	ADDITION OF Br	DELETION OF Br	ADDITION /DELETION OF Br
$Lp_{NEW} < Lp_{OLD-MIN} + \Delta Lp_{INI}$ AND $SIR_{NEW} < SIR_{STD}$	○			○		
$Lp_{NEW} < Lp_{OLD-MIN} + \Delta Lp_{INI}$ AND $SIR_{NEW} < SIR_{STD}$			○			○
$Lp_{NEW} < Lp_{OLD-MIN} + \Delta Lp_{SWT}$						
$Lp_{OLD-MAX} > Lp_{OLD-MIN} + \Delta Lp_{TER}$ OR $SIR_{MIN} < SIR_{STD}$		○			○	

CONTINUED FROM FIG. 24

[illegible]

FIG. 25

CATEGORY	TRIGGER		TYPE	DIRECTION	EVALUATOR	
	TRANSMISSION LOSS	DETECTION OF NEW Br CANDIDATE				
						2Br OR LESS
		2Br OR MORE				
		DETECTION OF UNNECESSARY Br				
				DOWNLINK	MS	

CONTINUED FROM FIG. 25

NARROWLY DEFINED	DEGRADED QUALITY	VISITING SECTOR	MISREPRESENTED CODES		UPLINK/ DOWNLINK	BTS, DHT/ MS
		DESTINATION SECTOR	SETTING OF THE SAME FREQUENCY BAND POSSIBLE	VACANT TRX OF THE SAME FREQUENCY BAND ABSENT	UPLINK/ DOWNLINK	BTS, DHT/ MS
			SETTING OF THE SAME FREQUENCY BAND IMPOSSIBLE	PERCH SETTING POSSIBLE	UPLINK/ DOWNLINK	BTS, DHT/ MS
		OUT-OF-SYNC			UPLINK/ DOWNLINK	BTS, DHT/ MS
BROADLY DEFINED		OAM	DISCHARGE FOR MAINTENANCE		UPLINK/ DOWNLINK	BTS, OPS
		CHANGE OF ATTRIBUTES				MSC

CONTINUED FROM FIG. 25

CRITERIA FOR EVALUATION	DHT FIXED				DHT SWITCHING
	Br SWITCHING HO		RE-CONNECTION TYPE HO		Br SWITCHING HO
	INTRA-CELLULAR	INTER-SECTOR / INTRA-CELLULAR	INTRA-CELLULAR	INTER-SECTOR / INTRA-CELLULAR	INTRA-CELLULAR
$Lp_{NEW} < Lp_{OLD-MIN} + \Delta Lp_{INI}$ AND $SIR_{NEW} < SIR_{STD}$	SAME FREQUENCY	DIFFERENT FREQUENCY	SAME / DIFFERENT FREQUENCY	SAME / DIFFERENT FREQUENCY	SAME / DIFFERENT FREQUENCY
$Lp_{NEW} < Lp_{OLD-MIN} + \Delta Lp_{INI}$ AND $SIR_{NEW} < SIR_{STD}$					
$Lp_{NEW} < Lp_{OLD-MIN} + \Delta Lp_{SWT}$					
$Lp_{OLD-MAX} > Lp_{OLD-MIN} + \Delta Lp_{TER}$ OR $SIR_{MIN} < SIR_{STD}$					

CONTINUED FROM FIG. 25

DEGRADED QUALITY (FOR ONLY SPECIFIC CODES), AND THE SAME SECTOR WITH THE SAME FREQUENCY BAND HAS A CAPACITY						O
DEGRADED QUALITY, AND Br SWITCHING HO THRESHOLD OVERRUN, AND ROUTE OF A DIFFERENT FREQUENCY BAND HAS A CAPACITY						
DEGRADED QUALITY (OR DEGRADED STR), AND Br SWITCHING HO THRESHOLD OVERRUN; AND ROUT OF A DIFFERENT FREQUENCY BAND HAS A CAPACITY				O		
OUT-OF-SYNC					O	
MAINTENANCE OPERATION					O	
CHANGE OF ATTRIBUTES (CC)						O

FIG. 26

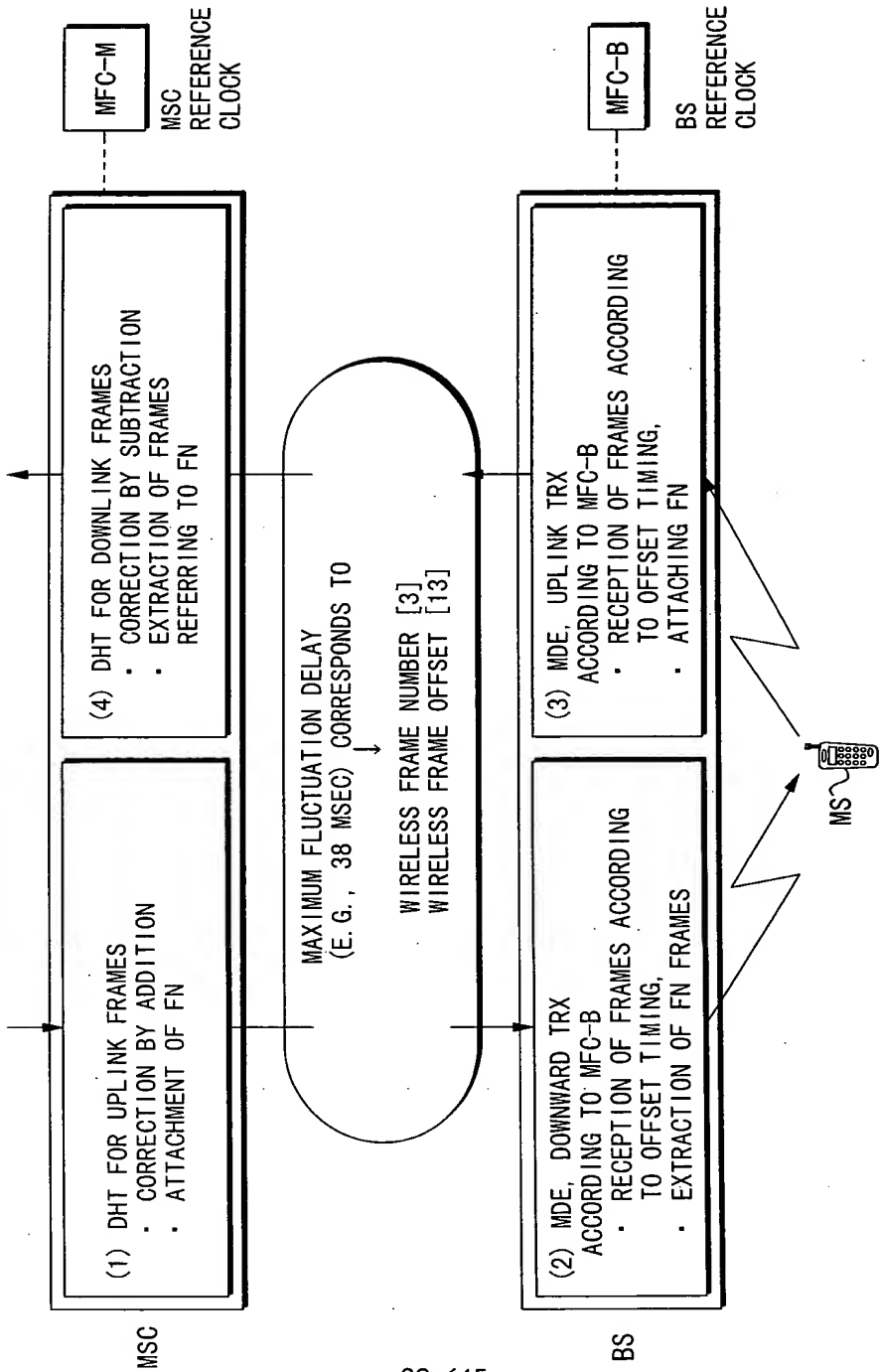


FIG. 27

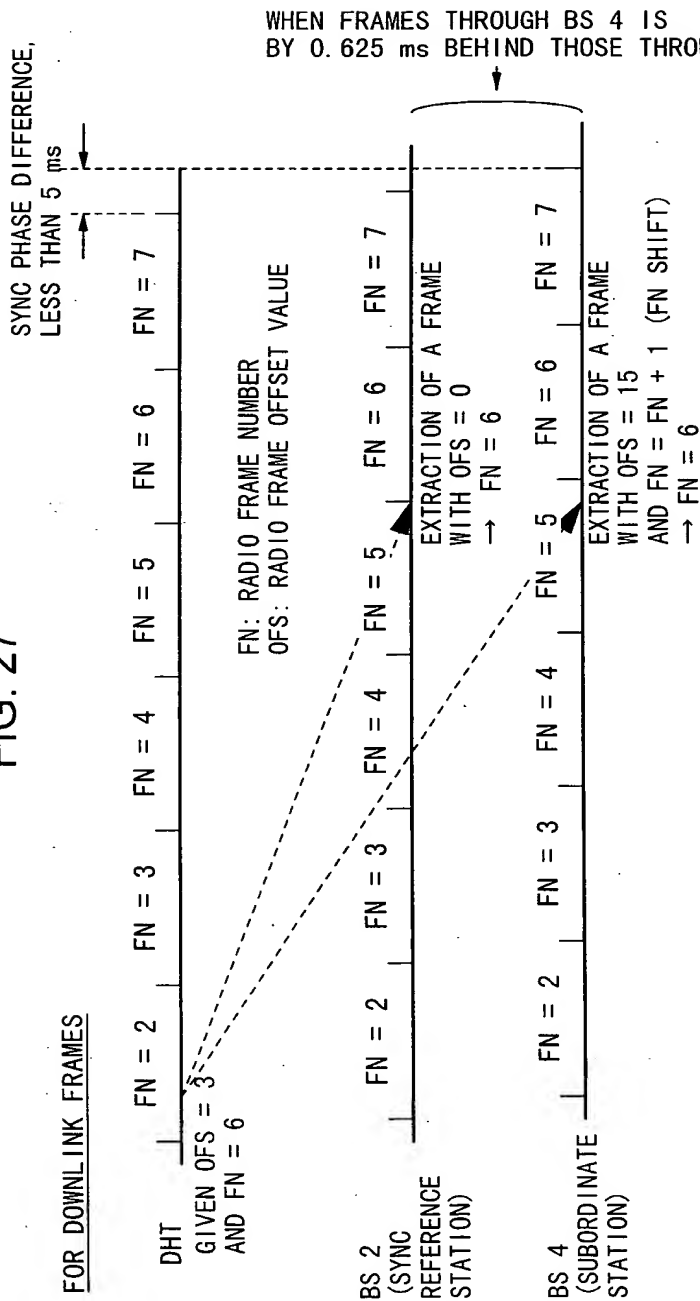


FIG. 28

FOR UPLINK FRAMES

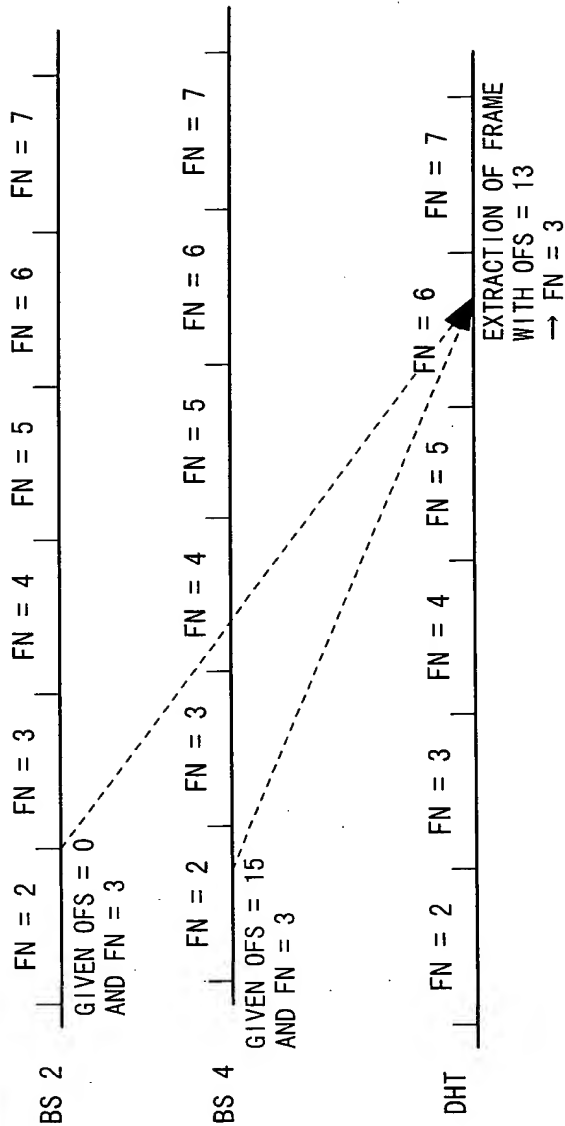


FIG. 29

CALCULATION OF TIMING PARAMETERS	
(1) DELIVERY TO DHT	DELIVERED AT THE TIMING OF OFS = [16] (FIXED) - [13] (CORRECTED) = [3]
	FN = [2] (REFERENTIAL CLK) + [3] (CORRECTED) + [1] (OFFSET ODD) = [6] GIVEN AT CLK = [2]
(2) EXTRACTION AT BS	EXTRACTION AT TIMING OF OFS = [0] (FIXED)
	EXTRACTION OF FRAME WITH FN = [6] (REFERENTIAL CLK) AT REFERENTIAL CLK = [6]
	EXTRACTION AT TIMING OF OFS = [0] (FIXED) - [1] (SYNCHRONIZATION DIFFERENCE) = [-1] + [16] (FN SHIFT) = [15]
	EXTRACTION OF FRAME WITH FN = [5] (REFERENTIAL CLK) + [1] (FN SHIFT) = [6] AT REFERENTIAL CLK = [5]

FIG. 30

CALCULATION OF TIMING PARAMETERS		
UPLINK FRAME	(3) DELIVERY TO BS	EXTRACTION AT TIMING OF OFS = [0] (FIXED)
		FN = [3] (REFERENTIAL CLK) GIVEN AT REFERENTIAL CLK = [3]
	SUBORDINATE BS	DELIVERY AT TIMING OF OFS = [0] (FIXED) - [1] (SYNCHRONIZATION DIFFERENCE) = [-1] + [16] (FN SHIFT) = [15]
		DELIVERY OF FRAME WITH FN = [2] (REFERENTIAL CLK) + [1] (FN SHIFT) = [3] AT REFERENTIAL CLK = [5]
	EXTRACTION AT TIMING OF OFS = [13] (CORRECTION)	
	(3) EXTRACTION AT DHT	EXTRACTION OF FRAME WITH FN = [6] (REFERENTIAL CLK) - [3] (CORRECTION) = [3] AT REFERENTIAL CLK = [6]

FIG. 31

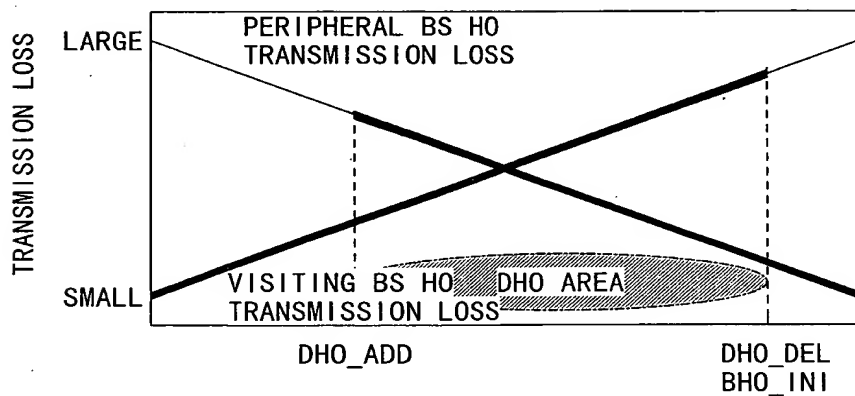


FIG. 32

FN SLIDE PROCESSING PARAMETER MANAGEMENT TABLE

PARAMETER	SERVICE TYPE	(a-1) MS~MSC LINK FOR AFFILIATED CONTROL SIGNALS	(a-2) VOICE	(a-3) DATA COMMUNICATION 1	...	(a-n) SERVICE n
FOR UPLINK FRAME	FN SLIDE UNIT	2	1	4		1
	FN SLIDE MAXIMAL WIDTH	10	5	16		3
FOR DOWNLINK FRAME	FN SLIDE UNIT	2	1	4		1
	FN SLIDE MAXIMAL WIDTH	10	5	16		3

FIG. 33

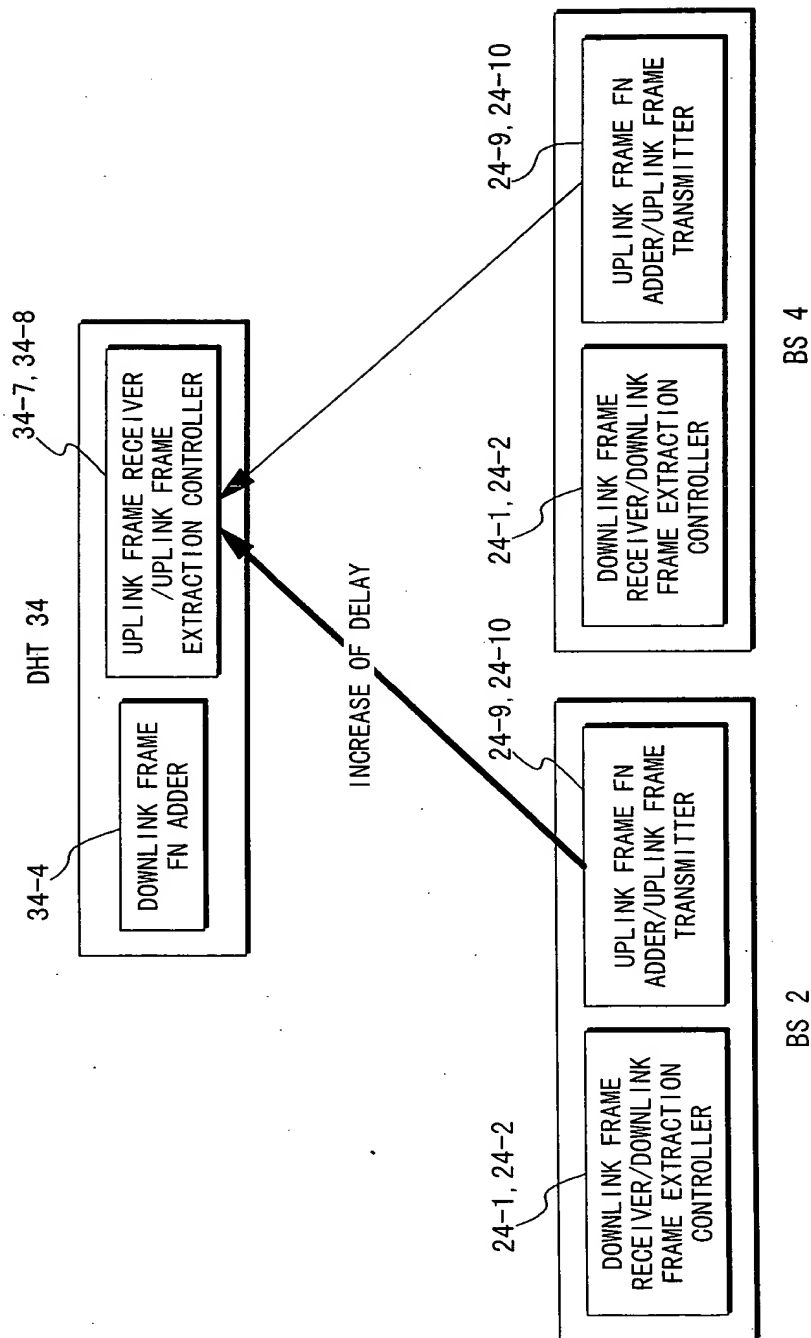


FIG. 34

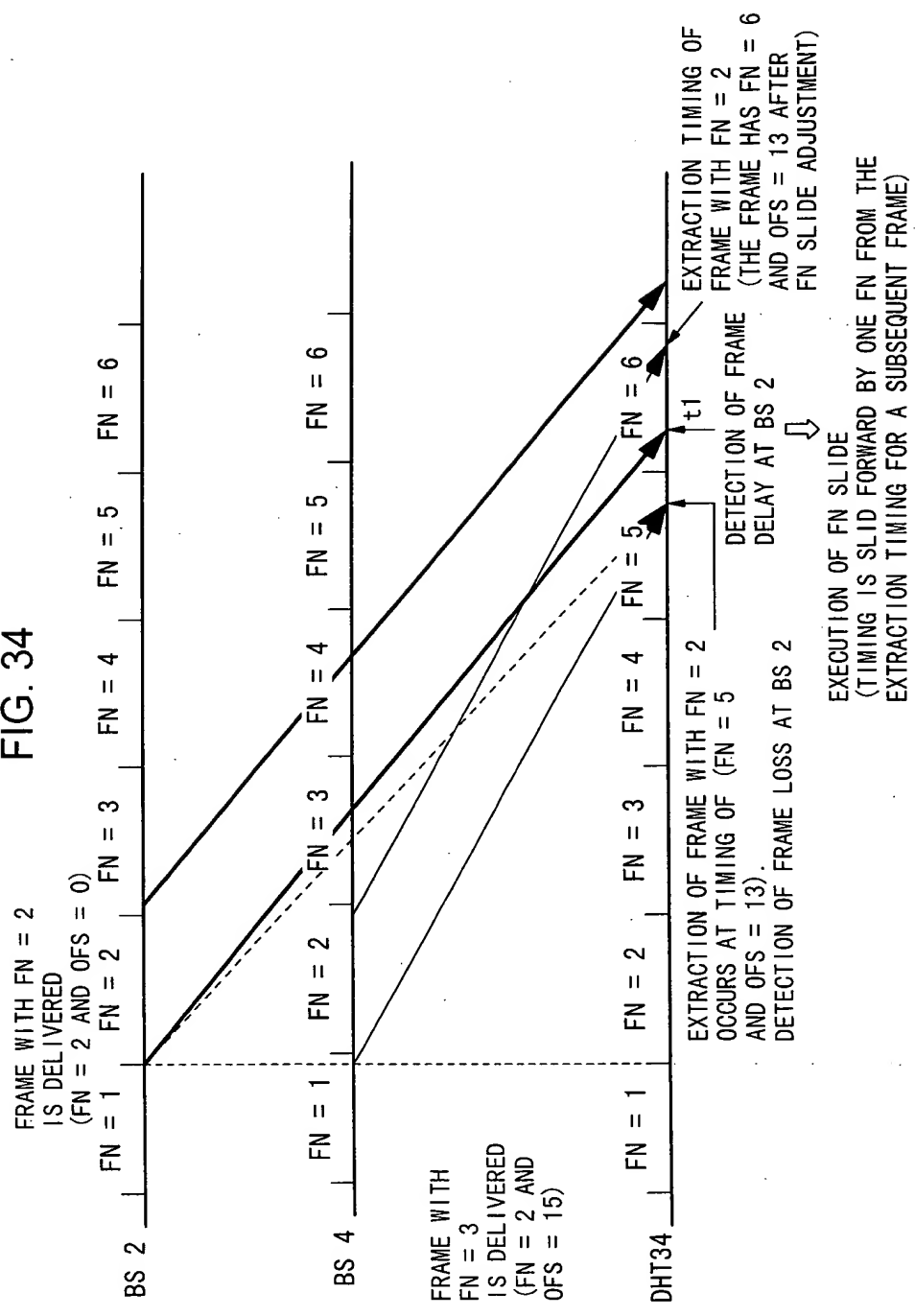


FIG. 35

DHT 34

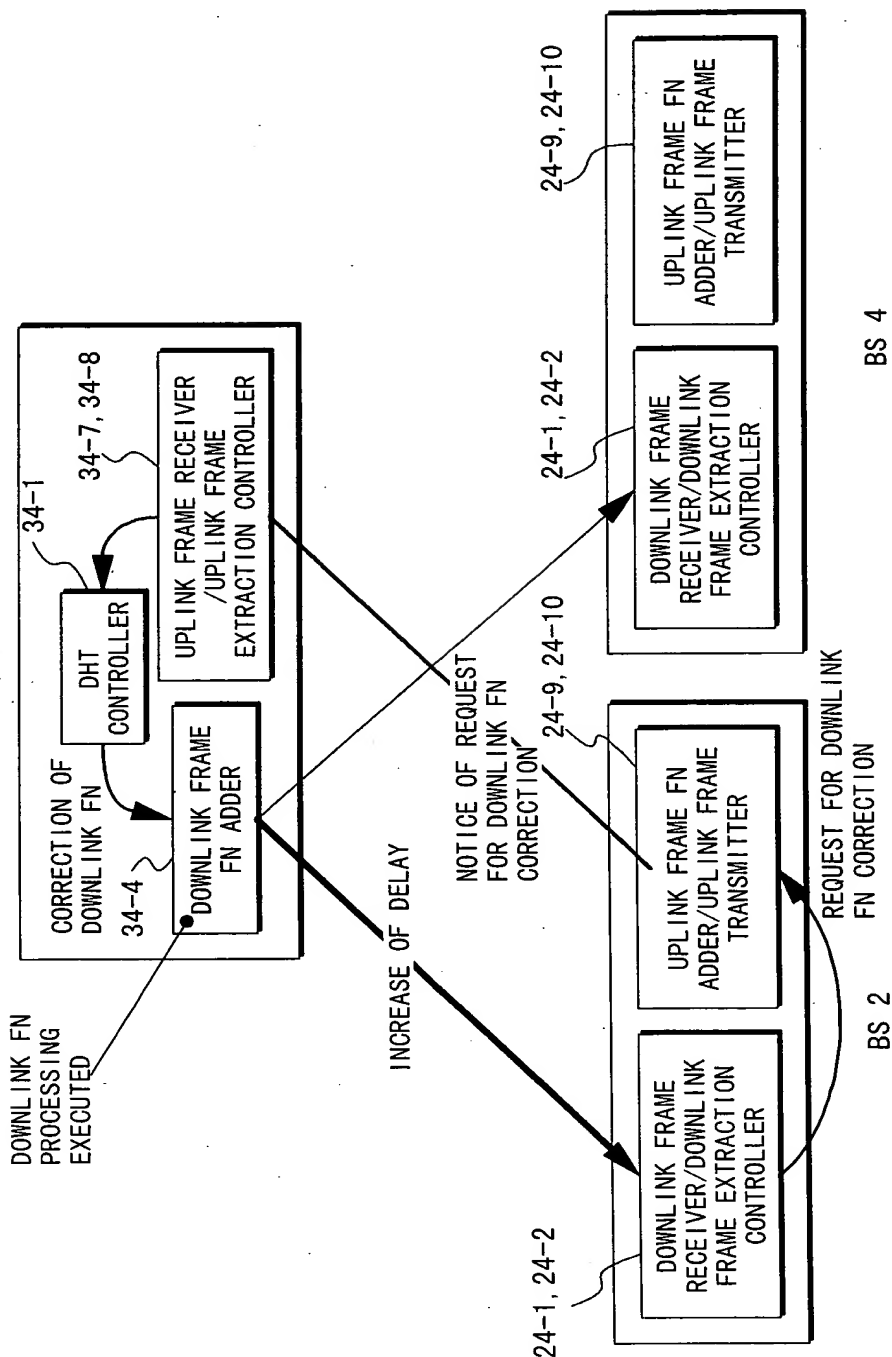


FIG. 36

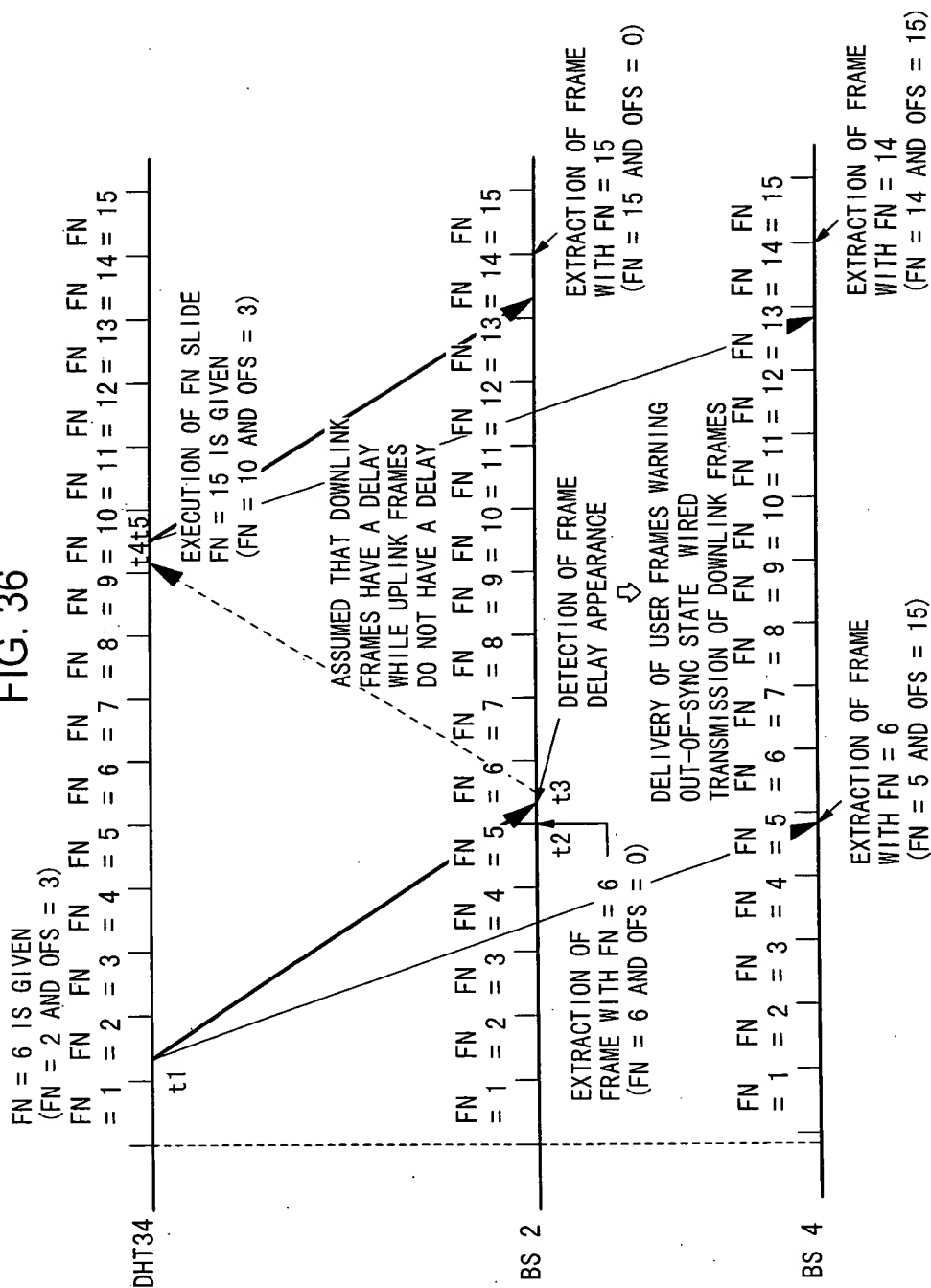


FIG. 37

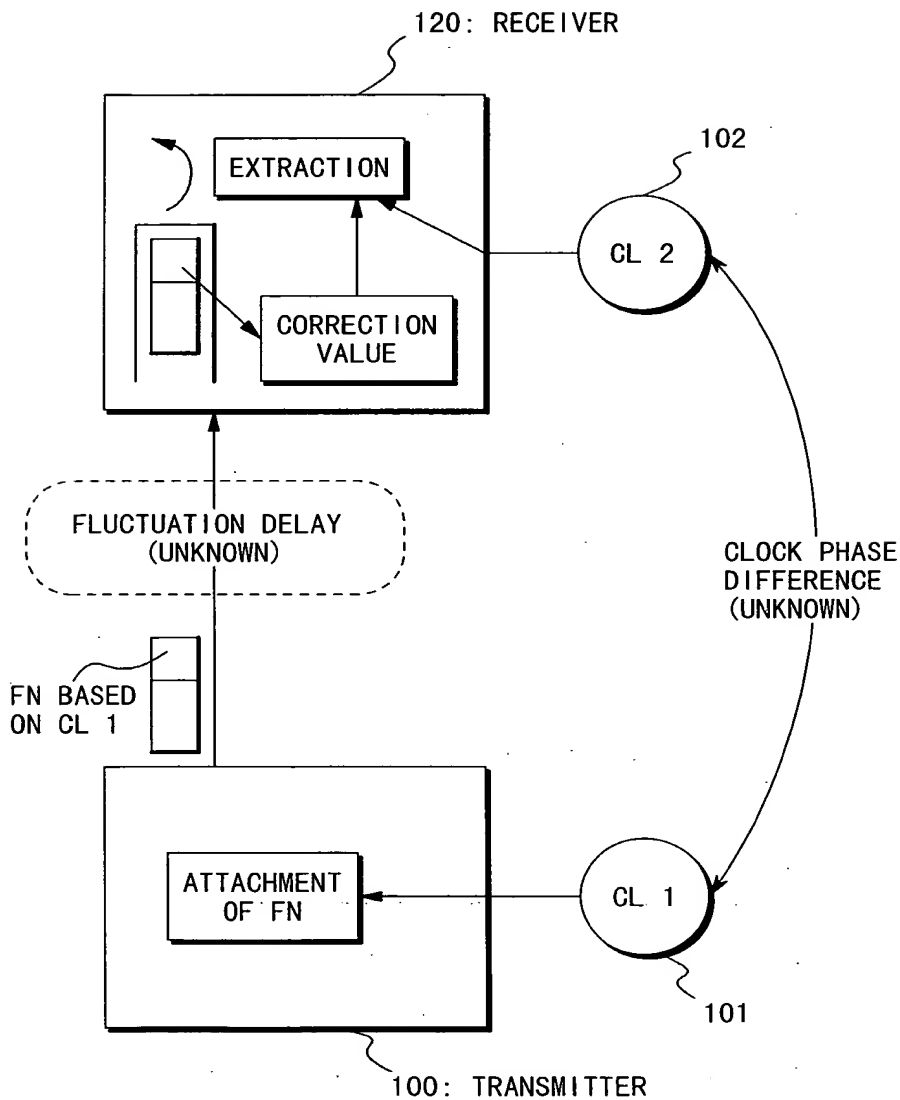


FIG. 38

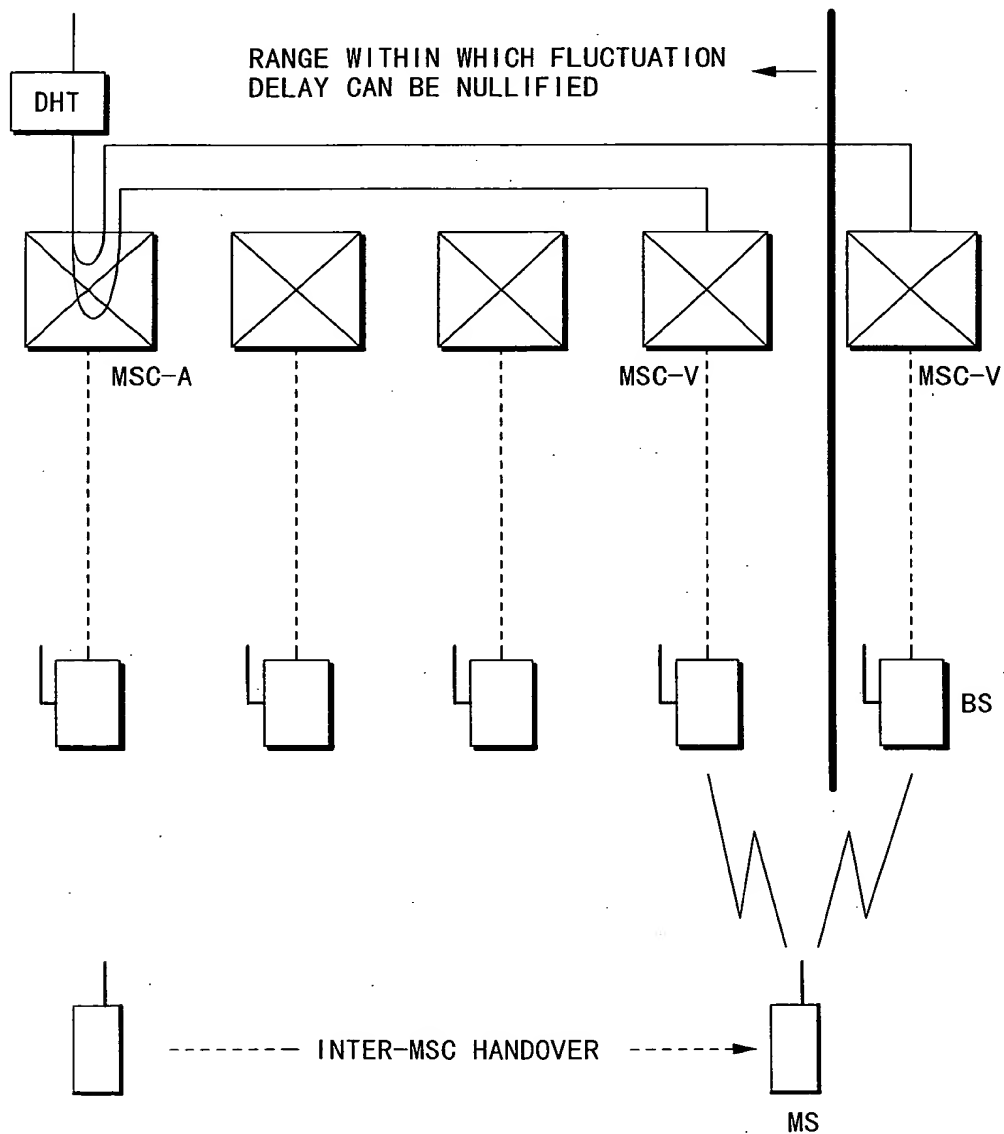
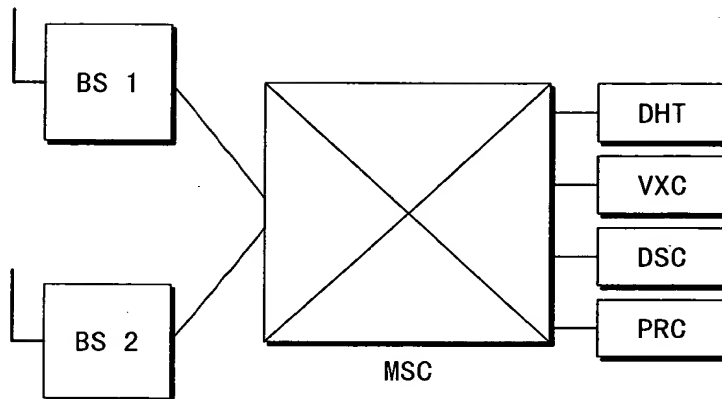
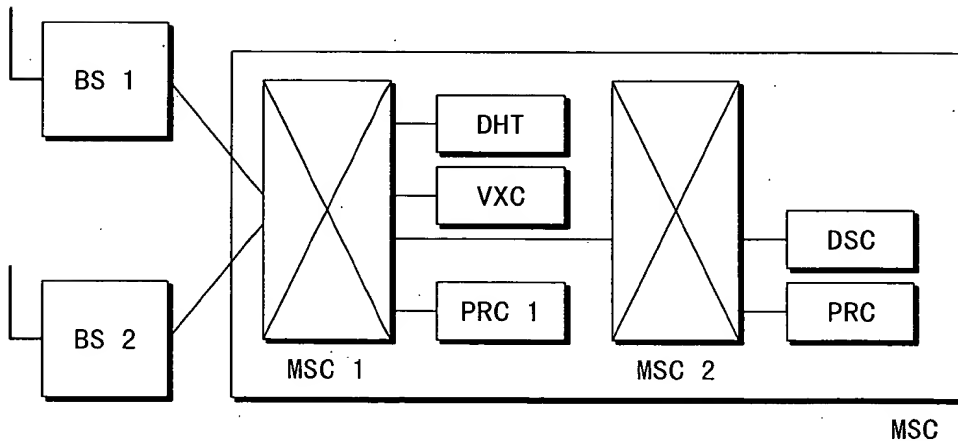


FIG. 39

CASE 1



CASE 2



※ MSC 1 CAN BE LOCATED ADJACENT TO BS